



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/871,463

05/31/2001

Charles R. Spinner III

01-P-002
(STM101-00013)

9805

30425 7590 03/10/2003

STMICROELECTRONICS, INC.
MAIL STATION 2346
1310 ELECTRONICS DRIVE
CARROLLTON, TX 75006

EXAMINER

WARREN, MATTHEW E

ART UNIT

PAPER NUMBER

2815

DATE MAILED: 03/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/871,463

Applicant(s)

SPINNER III, ET AL.

Examiner

Matthew E. Warren

Art Unit

2815

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 19 February 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 8-20.

Claim(s) withdrawn from consideration: 1-7.

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____


EDDIE LEE

009/871,463

Continuation of 2. NOTE: the amendment to the dependent claim 17 concerning "the upper surface of the tungsten being exposed around the portion of the protective barrier layer" will require further consideration and a new search.

Continuation of 5. does NOT place the application in condition for allowance because: the arguments are not persuasive. The applicant requests reconsideration of the restriction requirement on the basis that the claims are not independent and distinct. Claims 1-7 are distinct from claims 8-20 because claims 1-7 are process claims and claims 8-20 are device claims, each set being classified and searched in two separate classes (438 and 257 respectively). Further, the process and product are distinct inventions because (A) the process is not an obvious process and can be used to make another product and (B) the product can be made by another process. For the condition of (A), the process of chemical mechanical polishing can be used to make a trench in a substrate to form a trench isolation. For the condition of (B), as stated in the Restriction, etching (instead of CMP) could be used. Therefore, the conditions for the Restriction Requirement have been satisfied and the Restriction is proper. With respect to the arguments that Gillespie does not show a protective barrier within the opening, the arguments are not persuasive. The examiner maintains the argument that the limitation "within the opening" is interpreted as broadly as possible and the TiN layer of Gillespie satisfies that condition. The limitation of claim 8 specifically states that the protective barrier is "OVER the tungsten layer and within the opening." If the claims were interpreted STRICTLY as the applicant desires, then such a limitation may not be supported by the specification because the drawings show in the final product of the invention that the protective barrier is only within the opening. For instance, in fig. 2b, the barrier 202 is within the opening and COPLANAR with the tungsten layer 201 (not over). Therefore the cited references show all of the elements of the claims and this action will remain final.